

❖ **SW-4000T-CXPA**
❖ **SW-8000T-CXPA**
3-CMOS prism line scan camera

- 3 x 4096 pixels
- 3 x 8192 pixels
- 97 kHz
- 49 kHz

Sweep+ Series 

CoaXPress®

Preliminary Version



- *Prism-based line scan camera with 3 x 4096 or 3 x 8192 pixels*
- *CoaXPress v2.0 standard with CXP-12 speed*
- *Prism technology for superior color quality and better color differentiation*
- *Max. line rates (RGB8/CXP-12) - SW-4000T-CXPA: 97 kHz; SW-8000T-CXPA: 49 kHz*
- *Pixel Size:*
 - SW-4000T-CXPA: 7.5 μ m x 7.5 μ m or 7.5 μ m x 10.5 μ m*
 - SW-8000T-CXPA: 3.75 μ m x 5.78 μ m*
- *Supports horizontal and vertical binning functions*
- *Flat field correction and color shading correction*
- *HSI and XYZ color space conversion*
- *Supports direct connection to rotary encoders plus large variety of trigger options*
- *Selectable Pixel Formats: RGB8, RGB10, and YUV422_8*
- *Excellent shock and vibration resistance*
- *Accepts power over CoaXPress interface*
- *Lens Mount: F or M52*



Specifications for SW-4000T-CXPA / SW-8000T-CXPA

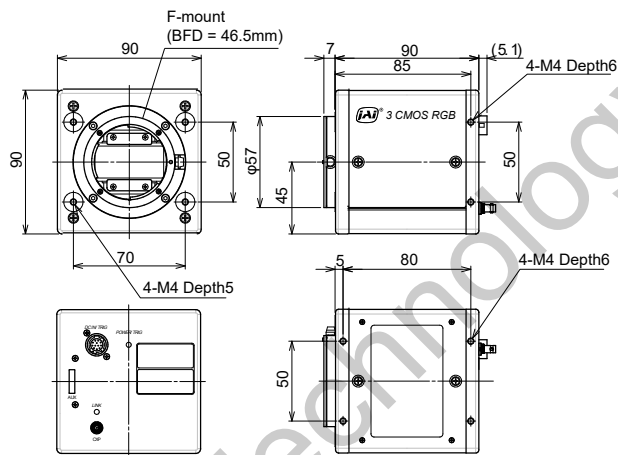
Sweep+ Series

Specifications	SW-4000T-CXPA/SW-8000T-CXPA
Scanning system	3 high-speed CMOS line sensors, prism-mounted
Active pixels	4000T: 3 x 4096 pixels (R, G, B) 8000T: 3 x 8192 pixels (R, G, B)
Line rate (full width)	4000T: 97 kHz (RGB8), 145 kHz (YUV422_8) 8000T: 49 kHz (RGB8), 73 kHz (YUV422_8)
Sensor width	30.72 mm
Pixel size	4000T: 7.5 µm x 7.5 µm or 7.5 µm x 10.5 µm 8000T: 3.75 µm x 5.78 µm
Interface	CoaxPress 2.0 (Micro-BNC connector) CXP-12, CXP-6, CXP-3
Video output	RGB8, RGB10, YUV422_8
Inputs (Trigger)	1 Opto In, + 2 TTL via 12-pin, 2 TTL via 10-pin, CXP In, Pulse Generator (4), Logic Block (2), User Out (4), Encoder Trigger
Outputs	2 TTL via 12-pin, 2 TTL via 10-pin
Gain	Analog Gain*: 0 dB / 6 dB / 12 dB Digital Master: 0 to +30 dB, R/B: -7.96 to +12 dB Digital Individual: 0 to +36 dB or -7.96 to +12 dB
White balance	Off, Once, ExposureOnce, Preset (5000K, 6500K, 7500K)
Gamma - SW-4000T-CXPA	0.45 to 1.0 (9 steps) or 257-point LUT
Gamma - SW-8000T-CXPA	0.45 to 4.0 (20 steps) or 257-point LUT
Image processing	PRNU/DSNU, black level, flat shading and color shading correction, chromatic aberration adjustment, horizontal mirroring, noise filtering
Color space conversion	RGB to HSI, XYZ (CIE), sRGB, Adobe RGB, or Color Correction Matrix
Exposure modes	Off, timed, and trigger width control
Exposure time	3 µs ~ 15.149 ms Exposure time can be longer at slower line rates.
Pulse width control	1.8 µs to ~1 sec
Lens mount	Nikon F-mount or M52 mount (46.5 mm back flange distance for both mounts)
Operating temp. (ambient)	-5°C to +45°C (20 to 80% non-condensing)
Storage temp. (ambient)	-25°C to +60°C (20 to 80% non condensing)
Vibration	3G (20 Hz to 200 Hz, XYZ directions)
Shock	50G
Regulations	CE (EN55035 and EN55032) FCC Part15 Subpart B, RoHS/WEEE, KC
Power - SW-4000T-CXPA	12-pin: +10.8V ~ +26.4V DC, 8.0W typical @ +12V, 10.0W Max PoCXP: +18.5V ~ +26V, 8.9W typical, 10.0W Max
Power - SW-8000T-CXPA	12-pin: +10.8V ~ +26.4V DC, TBD W @ +12V, TBD W Max PoCXP: +18.5V ~ +26V, TBD W typical, TBD W Max
Dimensions (H x W x L)	(without connector and lens mount protrusions) 90 mm x 90 mm x 90 mm
Weight	790 g (typical)

Ordering Information

SW-4000T-CXPA-F	3-CMOS prism line scan camera with F-mount
SW-4000T-CXPA-M52	3-CMOS prism line scan camera with M52-mount
SW-8000T-CXPA-F	3-CMOS prism line scan camera with F-mount
SW-8000T-CXPA-M52	3-CMOS prism line scan camera with M52-mount

Dimensions (F-mount)



F-mount model shown. For M52 drawings and dimensions, see manual.

Connector pin-out

DC In / Trigger (12-pin)

Pin	Signal
1	Ground
2	DC in +10.8V to +26.4V
3	Ground
4	TTL In 4
5	Opto in 1-
6	Opto in 1+
7	TTL out 4
8	NC
9	TTL out 1
10	TTL in 1
11	DC in +10.8V to +26.4V
12	Ground

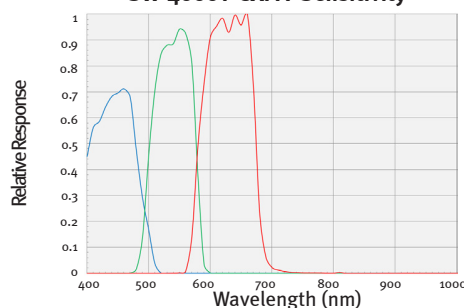
AUX (10-pin)

Camera side: 3260-10S3 (55)
Cable side: 3240-10P-C (50)

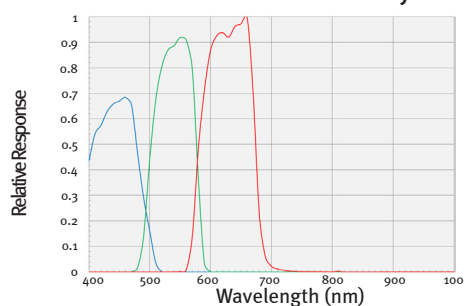
Pin	Signal
1	TTL Out2
2	TTL Out3
3	TTL_In2
4	NC
5	GND
6	TTL_In3
7	NC
8	NC
9	GND
10	GND

Spectral response

SW-4000T-CXPA Sensitivity



SW-8000T-CXPA Sensitivity



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